

National Institute on Alcohol Abuse and Alcoholism Division of Epidemiology and Prevention Research Alcohol Epidemiologic Data System

SURVEILLANCE REPORT #69

TRENDS IN ALCOHOL-RELATED FATAL TRAFFIC CRASHES, UNITED STATES, 1977–2002

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HIGHLIGHTS

This is the 19th annual surveillance report from the National Institute on Alcohol Abuse and Alcoholism (NIAAA) on trends in alcohol-related fatal traffic crashes. Data in this series of reports are compiled from sources provided by the National Highway Traffic Safety Administration (NHTSA), the Federal Highway Administration (FHA), and the U.S. Census Bureau. The following are highlights from the current report that update trends in alcohol-related fatal traffic crashes through 2002:

Alcohol-Related Traffic Crash Fatalities

- In 2002 13,608 persons died in alcohol-related traffic crashes, which constituted 30.5 percent of the total traffic crash fatalities. This proportion is the same as in 2001.
- The number of alcohol-involved drivers in fatal traffic crashes was 10,256 for male drivers and 1,730 for female drivers, representing a 3 percent increase and 5 percent decrease from 2001, respectively.
- Alcohol-related traffic crash fatalities per 100 million vehicle miles traveled, 100,000 population, 100,000 registered vehicles, and 100,000 licensed drivers were 0.46, 4.54, 5.57, and 6.71, respectively, with little or slight changes from the rates in 2001.
- In 2002 drivers continued to constitute the largest proportion of fatalities in traffic crashes, which was 71 percent among alcohol-related traffic fatalities and 58 percent among nonalcohol-related traffic fatalities.

Blood Alcohol Concentration (BAC) Testing and Results

- The national BAC testing rate of drivers killed in traffic crashes was 72.6 percent in 2002, about the same as in 2001.
- The percentage distribution of BAC values peaked at 0.10–0.14 for drivers ages 16 to 19 and at 0.15–0.19 for all older age groups.
- In 2002 about 77.7 percent of drivers with positive BAC results were legally intoxicated, having BAC scores of 0.10 grams per deciliter (g/dl) or higher at the time of their crashes. If the legal BAC limit were lowered to 0.08 in all States, an additional 6.1 percent, or a total of 83.8 percent, of the BAC-positive drivers would have been considered legally intoxicated.

Young Drinking Drivers

- In 2002 4,290 deaths (including driver, passenger, and pedestrian deaths) were associated with young drinking drivers ages 16 to 24, representing a 3.5 percent increase from 2001.
- In 2002 2,301 drinking drivers ages 16 to 24 were killed in traffic crashes, representing a 6.1 percent increase from 2001.
- Young drivers ages 21 to 24 continued to have the highest proportion (33.1 percent) of alcohol involvement among all age groups.

INTRODUCTION

This 18th issue of the surveillance report on alcohol-related¹ fatal traffic crashes is one in a series of surveillance reports prepared by NIAAA's Alcohol Epidemiologic Data System (AEDS). These reports are designed to provide useful data to researchers, planners, policymakers, and other professionals interested

in alcohol abuse and its associated illnesses and mortality.

The 2002 mortality statistics show that the category of "accidents (unintentional injuries)" was the number one cause of death for persons in the age groups of 1 to 4, 5 to 14, 15 to 24, and 25 to 44 in the United States; motor vehicle accident fatalities represented 37, 60, 75, and 51 percent of the deaths in this category for the four age groups, respectively. Overall, this category was the fifth leading

¹ The terms "alcohol-related" and "alcohol-involved" are used interchangeably throughout this report.

cause of death in the United States in 2002; 44 percent of these deaths were due to motor vehicle accidents (Kochanek and Smith 2004). From 1977 through 2002 about 40,000 to 50,000 people per year died in traffic crashes.

The Surgeon General's Workshop on Drunk Driving (Office of the Surgeon General 1989) emphasized the need for accurate and timely epidemiologic data to address the Nation's drinking and driving problem. Over the past 20 years, in addition to this series of reports, AEDS staff have periodically reported on various aspects of alcohol-related traffic fatalities (e.g., Aitken and Zobeck 1985; Grigson et al. 1985; Lowman et al. 1983; Malin et al. 1982; Malin and Verdugo 1984; Verdugo et al. 1983; Zobeck and Williams 1994; Zobeck et al. 1986, 1990, 1994). Data in this report are focused on general trends in alcohol-related traffic fatalities, BAC testing rates and results, and young drinking drivers involved in fatal traffic crashes.

DATA

The U.S. Department of Transportation's Fatality Analysis Reporting System (FARS) is the major data source for this report. FARS contains data on all traffic crashes within the United States involving a motor vehicle traveling on a trafficway customarily open to the public and resulting in the death of a vehicle occupant or nonmotorist within 30 days of the crash. The system is operated by NHTSA in cooperation with each State. FARS collects detailed data on the conditions of a crash, the vehicle(s) involved, and the driver(s) and other person(s) involved. These data are obtained from each State's existing documents (e.g., police accident reports, death certificates, and hospital medical records).

Denominators used in calculating fatality rates are taken from the following sources:

- *Population estimates.*—U.S. Census Bureau estimates of the U.S. population as of July 1 of each year (U.S. Census Bureau 1977–89, 2002, 2003, 2004).
- Registered vehicles, licensed drivers, and vehicle miles traveled.—FHA, for each

year (Federal Highway Administration 1978–2003).

It should be noted that, beginning with the 2003 issue of this report, the 1990s population data used previously in this report series were replaced with the reestimated intercensal population data that bridge the 1990 and 2000 censuses (U.S. Census Bureau 2002). This resulted in minor changes, mainly slight decreases, in the calculated population rates (presented in tables 2 and 3) for the 1990s compared with reports published prior to 2003.

METHODS

Definition of Alcohol Involvement

The following two variables in FARS are used in this report to define alcohol involvement:

- Officer's judgment.—The judgment of the investigating officer regarding the presence of alcohol in a person involved in a fatal crash.
- BAC test.—A finding from any one of several chemical tests that measure the amount of alcohol in the blood.

In this report, the definition of an alcohol-related traffic crash is based on the alcohol involvement of the driver. A traffic crash is considered to be alcohol-related if either the officer's judgment variable is coded "yes" or the BAC test is positive (i.e., 0.01 g/dl or above) for at least one driver involved in the crash. A fatality is considered to be alcohol-related if the death occurs as the result of an alcohol-related crash.

In contrast to the definition used in this report, NHTSA defines a traffic crash as alcohol-related if either a driver or a nonmotorist has a measurable or estimated BAC of 0.01 g/dl or above. NHTSA uses a statistical procedure to estimate unknown BAC values based on data for drivers with known BAC values (Klein 1986a, b; Subramanian 2002). Thus the methodology in this report for determining alcohol involvement in fatal crashes differs from that used by NHTSA in the following three respects: (1) two alcohol involvement variables are used to identify a crash as alcohol-related, (2) only drivers'

alcohol involvement is used to determine the nature of a crash, and (3) no estimation procedures are used for unknown BAC values. Therefore, caution must be used while comparing data from this report with data from the estimates made by NHTSA.

Fatality Measures

Frequencies and percentage distributions of traffic crash fatalities and BAC tests are calculated by sex and/or age group and presented in graphic and tabular form. In addition, the report includes rates based on associated risk factors.

The probability of having or being involved in a traffic crash depends on several factors (e.g., the amount of time a person spends on the road, the number of miles driven, vehicle speed, or type of vehicle driven). Four associated "risk factors"—VMT, the number of people in the population, the number of registered vehicles, and the number of licensed drivers—are used to express traffic crash fatalities as rates per these denominators. These rates place the raw frequencies within a context of associated risk factors, each of which is subject to change over time.

Finally, the measure of years of potential life lost (YPLL) is used to assess the human cost of traffic crash fatalities. In this report, YPLL is calculated by subtracting the age at death from age 65 for each death (for decedents under age 65 only) and then accumulating the total across all deaths.

In previous issues of this report, comparisons between 1977 (the beginning year of the surveillance data) and the latest data year were presented in some figures and tables. In order to make the comparisons more relevant to observing current trends, these comparisons have been changed to that between 2000 and the latest data year beginning with the current issue.

Limitations

Alcohol involvement rates presented in this report should be viewed as conservative estimates for the following reasons:

- Police are sometimes reluctant to judge alcohol involvement, even in fatal crashes (yet when they do so, they are correct more than 90 percent of the time [Mercer 1985]);
- BAC tests are not administered consistently and routinely across jurisdictions;
- AEDS does not impute a value when the BAC level is missing from FARS data; and
- Only alcohol-involved drivers flag accidents as alcohol-related; thus a traffic crash involving an alcohol-impaired pedestrian, without evidence that the driver(s) had been drinking, would not be included in this enumeration of alcoholrelated crashes.

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Figure 1. Alcohol-related and nonalcohol-related traffic crash fatalities, United States, 1977–2002.

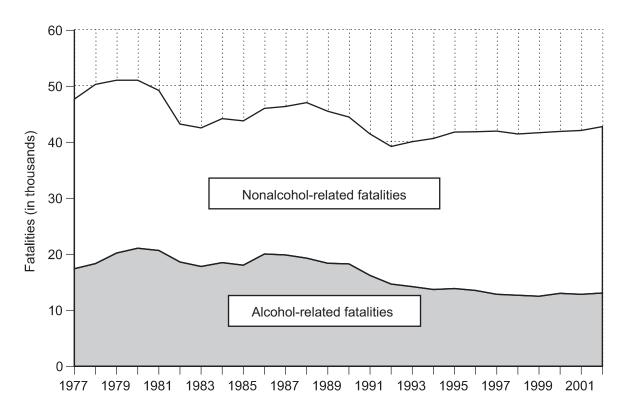


Figure 2a. Total and alcohol-related traffic fatality rates per 100 million vehicle miles traveled (VMT), United States, 1977–2002.

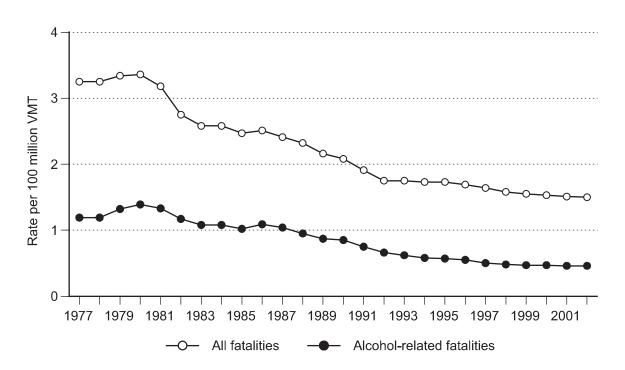


Figure 2b. Traffic fatality rates per 100,000 population, registered vehicles, and licensed drivers, United States, 1977–2002.

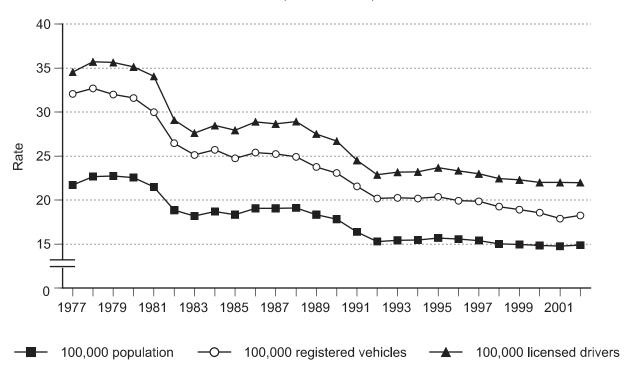


Figure 2c. Alcohol-related traffic fatality rates per 100,000 population, registered vehicles, and licensed drivers, United States, 1977–2002.

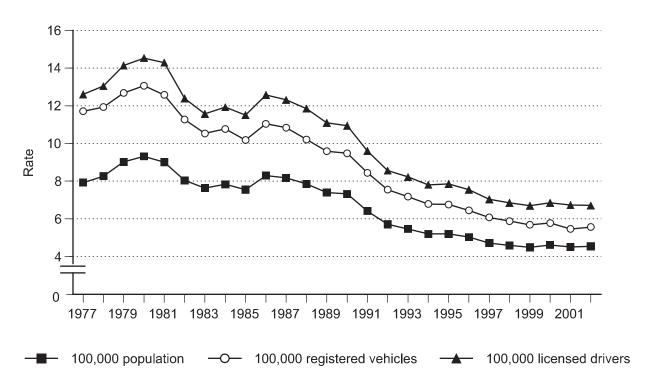
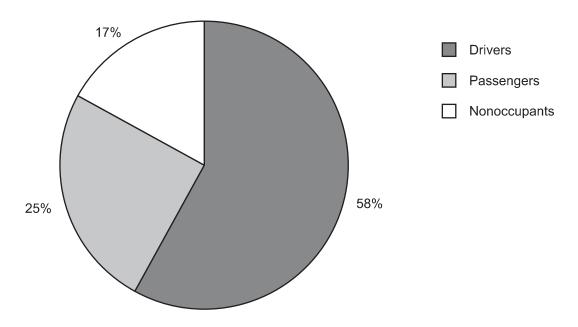
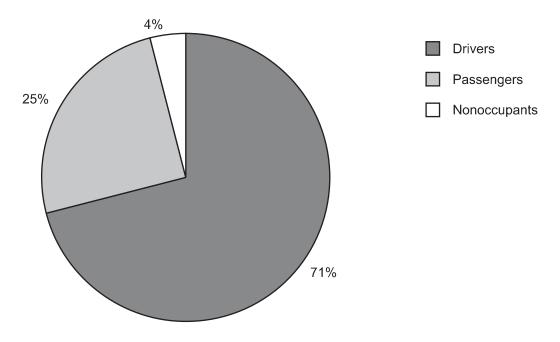


Figure 3a. Decedent's role in nonalcohol-related traffic crash fatalities, United States, 2002.



Note: 107 decedents were excluded from this pie chart because their roles were unknown.

Figure 3b. Decedent's role in alcohol-related traffic crash fatalities, United States, 2002.



Note: 5 decedents were excluded from this pie chart because their roles were unknown.

Figure 4. Percentage of drivers involved in fatal traffic crashes and given BAC tests, according to injury severity, United States, 1977–2002.

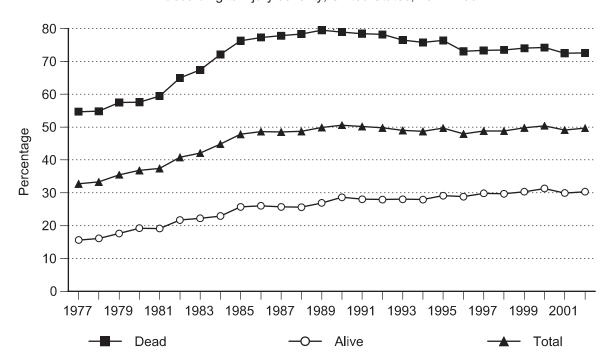


Figure 5. Percentage distributions of BAC among alcohol-involved drivers, according to age, United States, 2002.

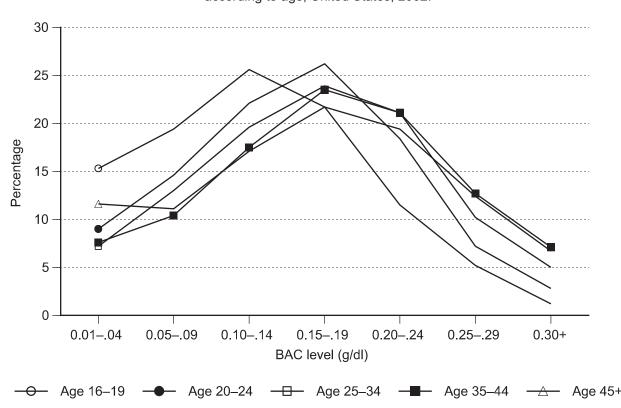


Figure 6. Percentage of alcohol involvement among drivers in fatal traffic crashes, according to age, United States, 2000 and 2002.

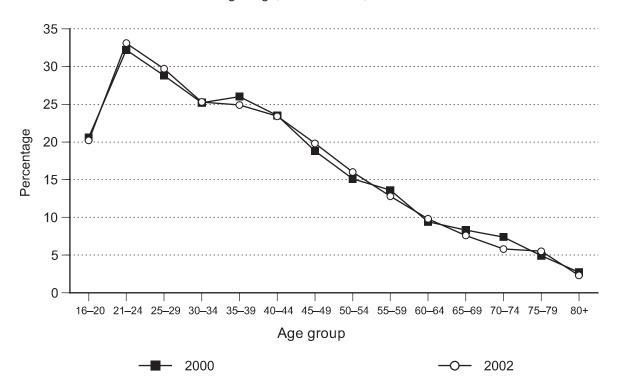


Figure 7. Percentage of alcohol involvement among young drivers ages 16 to 20 and drivers ages 21 and older in fatal traffic crashes, United States, 1977–2002.

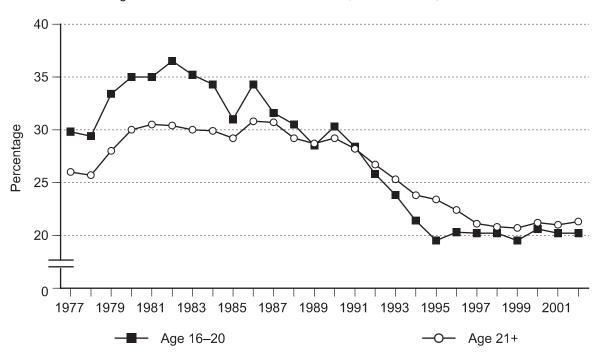


Table 1. Traffic crashes, traffic crash fatalities, and alcohol-related traffic crash fatalities, United States, 1977–2002.

		Ev	ent	
Year	Traffic crashes	Traffic crash fatalities (a)	Alcohol-related traffic crash fatalities (b)	Percent of all traffic crash fatalities (b/a)
2002	38,309	42,815	13,068	30.5
2001	37,795	42,116	12,864	30.5
2000	37,526	41,945	13,050	31.1
1999	37,140	41,717	12,547	30.1
1998	37,107	41,501	12,663	30.5
1997	37,324	42,013	12,870	30.6
1996	37,351	41,907	13,557	32.4
1995	37,241	41,817	13,881	33.2
1994	36,254	40,716	13,693	33.6
1993	35,747	40,115	14,225	35.5
1992	34,942	39,250	14,684	37.4
1991	36,895	41,462	16,231	39.1
1990	39,779	44,529	18,279	41.0
1989	40,718	45,555	18,381	40.3
1988	42,130	47,087	19,303	41.0
1987	41,435	46,386	19,918	42.9
1986	41,090	46,082	20,038	43.5
1985	39,196	43,825	18,040	41.2
1984	39,622	44,241	18,523	41.9
1983	37,971	42,584	17,847	41.9
1982	38,899	43,721	18,622	42.6
1981	43,979	49,268	20,662	41.9
1980	45,271	51,077	21,114	41.3
1979	45,212	51,084	20,245	39.6
1978	44,433	50,327	18,362	36.5
1977	42,064	47,715	17,414	36.5

Table 2. Total and alcohol-related traffic fatality rates per 100 million VMT ¹ and 100,000 population, registered vehicles, and licensed drivers, United States, 1977–2002.

		Ra	ate	
Year	100 million VMT ¹	100,000 population	100,000 registered vehicles ²	100,000 licensed drivers
All fatalities				
2002	1.50	14.87	18.25	21.99
2001	1.51	14.76	17.90	22.02
2000	1.53	14.86	18.57	22.00
1999	1.55	14.95	18.92	22.29
1998	1.58	15.04	19.26	22.44
1997	1.64	15.41	19.86	22.99
1997	1.04	15.41	19.00	22.55
1996	1.69	15.56	19.93	23.34
1995	1.73	15.70	20.37	23.68
1994	1.73	15.47	20.18	23.21
1993	1.75	15.43	20.26	23.17
1992	1.75	15.30	20.19	22.89
1991	1.91	16.39	21.56	24.53
1990	2.08	17.84	23.08	26.70
1989	2.16	18.35	23.76	27.52
1988	2.32	19.12	24.92	28.91
	-	-	-	
1987	2.41	19.06	25.24	28.67
1986	2.51	19.08	25.40	28.90
1985	2.47	18.35	24.74	27.94
1984	2.58	18.70	25.72	28.47
1983	2.58	18.20	25.13	27.61
1982	2.75	18.86	26.46	29.09
1981	3.18	21.49	29.99	34.07
		22.55		
1980	3.36		31.60	35.15
1979	3.34	22.75	32.00	35.65
1978	3.25	22.66	32.70	35.73
1977	3.25	21.71	32.07	34.55
Percent change 2000–2002	-1.96	0.07	-1.72	-0.05
Alcohol-related fatalities				
2002	0.46	4.54	5.57	6.71
2001	0.46	4.51	5.47	6.73
2000	0.47	4.62	5.78	6.85
1999	0.47	4.50	5.69	6.70
1998	0.48	4.59	5.88	6.85
1997	0.50	4.72	6.08	7.04
1000	0.55	5.00	0.45	7
1996	0.55	5.03	6.45	7.55
1995	0.57	5.21	6.76	7.86
1994	0.58	5.20	6.79	7.81
1993	0.62	5.47	7.18	8.22
1992	0.66	5.72	7.55	8.56
1991	0.75	6.42	8.44	9.60
	00		0.77	
1990	0.85	7.32	9.48	10.94
		7.32 7.40		
1990	0.85	7.32	9.48	10.94
1990 1989	0.85 0.87	7.32 7.40	9.48 9.59	10.94 11.10
1990	0.85 0.87 0.95 1.04	7.32 7.40 7.85 8.18	9.48 9.59 10.21 10.84	10.94 11.10 11.85 12.31
1990 1989 1988 1987	0.85 0.87 0.95 1.04	7.32 7.40 7.85 8.18 8.30	9.48 9.59 10.21 10.84 11.04	10.94 11.10 11.85 12.31 12.57
1990 1989 1988 1987 1986	0.85 0.87 0.95 1.04 1.09 1.02	7.32 7.40 7.85 8.18 8.30 7.55	9.48 9.59 10.21 10.84 11.04 10.18	10.94 11.10 11.85 12.31 12.57 11.50
1990	0.85 0.87 0.95 1.04 1.09 1.02 1.08	7.32 7.40 7.85 8.18 8.30 7.55 7.83	9.48 9.59 10.21 10.84 11.04 10.18 10.77	10.94 11.10 11.85 12.31 12.57 11.50 11.92
1990	0.85 0.87 0.95 1.04 1.09 1.02 1.08 1.08	7.32 7.40 7.85 8.18 8.30 7.55 7.83 7.63	9.48 9.59 10.21 10.84 11.04 10.18 10.77 10.53	10.94 11.10 11.85 12.31 12.57 11.50 11.92 11.57
1990	0.85 0.87 0.95 1.04 1.09 1.02 1.08 1.08	7.32 7.40 7.85 8.18 8.30 7.55 7.83 7.63 8.04	9.48 9.59 10.21 10.84 11.04 10.18 10.77 10.53 11.27	10.94 11.10 11.85 12.31 12.57 11.50 11.92 11.57 12.39
1990	0.85 0.87 0.95 1.04 1.09 1.02 1.08 1.08 1.17	7.32 7.40 7.85 8.18 8.30 7.55 7.83 7.63 8.04 9.01	9.48 9.59 10.21 10.84 11.04 10.18 10.77 10.53 11.27 12.58	10.94 11.10 11.85 12.31 12.57 11.50 11.92 11.57 12.39 14.29
1990	0.85 0.87 0.95 1.04 1.09 1.02 1.08 1.08 1.17 1.33 1.39	7.32 7.40 7.85 8.18 8.30 7.55 7.83 7.63 8.04 9.01 9.32	9.48 9.59 10.21 10.84 11.04 10.18 10.77 10.53 11.27 12.58 13.06	10.94 11.10 11.85 12.31 12.57 11.50 11.92 11.57 12.39 14.29 14.53
1990	0.85 0.87 0.95 1.04 1.09 1.02 1.08 1.08 1.17 1.33 1.39	7.32 7.40 7.85 8.18 8.30 7.55 7.83 7.63 8.04 9.01 9.32 9.02	9.48 9.59 10.21 10.84 11.04 10.18 10.77 10.53 11.27 12.58 13.06 12.68	10.94 11.10 11.85 12.31 12.57 11.50 11.92 11.57 12.39 14.29 14.53 14.13
1990	0.85 0.87 0.95 1.04 1.09 1.02 1.08 1.17 1.33 1.39 1.32	7.32 7.40 7.85 8.18 8.30 7.55 7.83 7.63 8.04 9.01 9.32 9.02 8.27	9.48 9.59 10.21 10.84 11.04 10.18 10.77 10.53 11.27 12.58 13.06 12.68 11.93	10.94 11.10 11.85 12.31 12.57 11.50 11.92 11.57 12.39 14.29 14.53 14.13 13.04
1990	0.85 0.87 0.95 1.04 1.09 1.02 1.08 1.08 1.17 1.33 1.39	7.32 7.40 7.85 8.18 8.30 7.55 7.83 7.63 8.04 9.01 9.32 9.02	9.48 9.59 10.21 10.84 11.04 10.18 10.77 10.53 11.27 12.58 13.06 12.68	10.94 11.10 11.85 12.31 12.57 11.50 11.92 11.57 12.39 14.29 14.53 14.13
1990	0.85 0.87 0.95 1.04 1.09 1.02 1.08 1.17 1.33 1.39 1.32	7.32 7.40 7.85 8.18 8.30 7.55 7.83 7.63 8.04 9.01 9.32 9.02 8.27	9.48 9.59 10.21 10.84 11.04 10.18 10.77 10.53 11.27 12.58 13.06 12.68 11.93	10.94 11.10 11.85 12.31 12.57 11.50 11.92 11.57 12.39 14.29 14.53 14.13 13.04

Vehicle miles traveled.
 Includes all private, commercial, and public-owned motor vehicles and motorcycles.

Table 3. Years of potential life lost (YPLL) ¹ from total and alcohol-related traffic crashes, according to sex, United States, 1977–2002.

			YP	LL			
Year and sex	All traffi	c crash deat	hs	Alcohol-relate	ed traffic crash	n deaths	Percent alcohol- related ³
	Years	Mean	Rate 2	Years	Mean	Rate ²	
Male		•			•	•	
2002	811,544	31.9	640	319,843	32.6	252	39.4
2001	800,340	32.0	638	309,741	32.5	247	38.7
2000	793,122	32.1	640	314,350	32.6	253	39.6
1999	774,709	32.4	632	304,133	32.9	248	39.3
1998	765,829	32.6	633	303,832	33.0	251	39.7
1997	775,404	32.8	649	307,183	33.0	257	39.6
1996	797,317	33.4	676	327,234	33.4	278	41.0
1995	811,619	33.5	697	338,327	33.4	290	41.7
1994	796,856	33.9	692	339,654	33.9	295	42.6
1993	797,541	33.9	702	353,734	34.0	311	44.4
1992	788,396	34.1	703	365,028	34.2	325	46.3
1991	858,689	34.5	776	418,068	34.8	378	48.7
1990	942,683	34.6	864	474,137	34.8	434	50.3
1989	954,983	34.7	881	470,095	34.8	434	49.2
1988	1,025,654	35.3	955	508,336	34.6 35.6	473	49.2
1987	1,023,034	35.4	966	519,312	35.5	488	50.5
1986	1.050.186	35.8	995	541,247	36.1	508	51.5
1985	979,059	35.4	936	478,682	35.8	458	48.8
1984	1,003,065	35.6	967	494,881	36.0	477	49.3
1983	978,208	35.7	951	482,922	36.1	470	49.3
1982	1,025,107	35.8	1,005	506,355	36.2	497	49.3
1981	1,159,566	35.8		557,533	35.9	552	48.0
			1,148	•			
1980	1,227,993	36.2	1,227	573,546	36.3	573 573	46.7
1979	1,238,294	36.4	1,277	555,113	36.5	572	44.8
1978 1977	1,208,669 1,129,628	36.5 36.4	1,255 1,181	502,380 471,103	36.4 36.3	521 492	41.5 41.7
Famala							
Female 2002	339,737	32.0	270	86,698	32.8	69	25.6
2001	331,106	32.4	266	89,524	33.2	72	27.1
2000	,	32.4	277	•	33.2 32.8	74	26.6
	340,870		I	90,820			
1999	347,500	32.8	285	90,767	34.0	75 78	26.1
1998 1997	345,936 359,436	32.6 33.1	288 302	93,775 95,903	33.9 33.8	76 81	27.1 26.7
1996	360,535	33.4	307	102,493	34.0	87	28.4
1995	354,250	33.7	305	103,774	34.1	89	29.3
1994	346.319	34.0	302	103,579	35.2	90	29.9
1993	334,397	34.1	295	106,676	34.8	94	31.9
1992	326,300	33.9	293	110,685	34.9	99	33.9
1991	348,423	33.9 34.5	315	119,760	34.9 35.4	108	34.4
1990	368,300	34.5 34.1	337	134,199	35.4	123	36.4
1989	391,727	34.7	360	139,960	35.5 35.6	123	35.7
1988 1987	395,517 388,780	35.0 35.1	366 363	147,453 156,042	35.9 36.1	136 146	37.3 40.1
1986	375,095	35.4	353	150,375	36.8	141	40.0
1985	363,186	35.4	344	135,518	36.0	128	37.3
1984	362,792	35.0 35.0	344	143,108	36.4	126	37.3
1983		35.0			36.4	137	38.5
1000	350,309 354,105		337	135,134			
1982	354,195 301,635	35.8	343	140,526	37.0 36.5	136	39.6
1981	391,625	35.7	383	153,345	36.5	150	39.1
1980	415,668	36.1	410	163,612	36.9	161	39.3
1979	414,511	36.4	421	152,996	37.1	155	36.9
1978	420,690	36.7	430	139,372	37.4	142	33.1
1977	404,133	36.6	416	134,712	37.0	139	33.3

Calculations excluded decedents with unknown age or sex.
 Number of YPLL per 100,000 population under age 65.
 Number of alcohol-related YPLL expressed as a percentage of total YPLL.

 Table 4. Alcohol-related traffic crash fatalities, according to age, United States, 1977–2002.

							Ag	е						
Year	Unde	er 16	16–	24	25–	44	45–	64	Ove	r 64	Unkn	own	All a	ges
	Number	Percent												
2002	377	2.9	4,012	30.7	5,631	43.1	2,447	18.7	565	4.3	36	0.3	13,068	100.0
2001	372	2.9	3,873	30.1	5,663	44.0	2,316	18.0	608	4.7	32	0.2	12,864	100.0
2000	398	3.0	3,859	29.6	5,825	44.6	2,334	17.9	610	4.7	24	0.2	13,050	100.0
1999	477	3.8	3,670	29.3	5,707	45.5	2,071	16.5	610	4.9	12	0.1	12,547	100.0
1998	481	3.8	3,709	29.3	5,737	45.3	2,061	16.3	662	5.2	13	0.1	12,663	100.0
1997	516	4.0	3,590	27.9	5,976	46.4	2,059	16.0	708	5.5	21	0.2	12,870	100.0
1996	514	3.8	3,909	28.8	6,337	46.7	2,054	15.2	717	5.3	26	0.2	13,557	100.0
1995	548	4.0	3,948	28.4	6,627	47.7	2,058	14.8	685	4.9	15	0.1	13,881	100.0
1994	606	4.4	4,108	30.0	6,316	46.1	1,927	14.1	724	5.3	12	0.1	13,693	100.0
1993	591	4.2	4,286	30.1	6,675	46.9	1,936	13.6	705	5.0	32	0.2	14,225	100.0
1992	602	4.1	4,463	30.4	6,854	46.7	1,951	13.3	792	5.4	22	0.2	14,684	100.0
1991	595	3.7	5,363	33.0	7,474	46.1	1,951	12.0	813	5.0	35	0.2	16,231	100.0
1990	711	3.9	5,897	32.3	8,530	46.7	2,284	12.5	832	4.6	25	0.1	18,279	100.0
1989	717	3.9	6,019	32.8	8,360	45.5	2,341	12.7	908	4.9	36	0.2	18,381	100.0
1988	789	4.1	6,974	36.1	8,371	43.4	2,274	11.8	865	4.5	30	0.2	19,303	100.0
1987	829	4.2	7,027	35.3	8,766	44.0	2,313	11.6	940	4.7	43	0.2	19,918	100.0
1986	842	4.2	7,685	38.4	8,372	41.8	2,202	11.0	864	4.3	73	0.4	20,038	100.0
1985	742	4.1	6,823	37.8	7,431	41.2	2,141	11.9	824	4.6	79	0.4	18,040	100.0
1984	727	3.9	7,359	39.6	7,427	40.0	2,176	11.7	831	4.5	64	0.3	18,584	100.0
1983	731	4.1	7,064	39.6	7,139	40.0	2,138	12.0	751	4.2	38	0.2	17,861	100.0
1982	794	4.3	7,629	41.0	7,123	38.8	2,244	12.1	768	4.1	64	0.3	18,622	100.0
1981	844	4.1	8,294	40.1	7,923	38.4	2,667	12.9	880	4.3	54	0.3	20,662	100.0
1980	955	4.5	8,941	42.4	7,637	36.2	2,676	12.7	834	4.0	71	0.3	21,114	100.0
1979	972	4.8	8,624	42.6	7,159	35.4	2,597	12.8	819	4.1	70	0.4	20,241	100.0
1978	926	5.0	7,884	42.9	6,290	34.3	2,416	13.2	773	4.2	73	0.4	18,362	100.0
1977	963	5.5	7,528	43.2	5,642	32.4	2,470	14.2	742	4.3	69	0.4	17,414	100.0

 Table 5. Decedent's role in alcohol-related traffic crash fatalities, United States, 1977–2002.

	Decedent's role													
Year	Dri	ver	Pass	enger	Nonoc	cupant	Unki	nown	P	All				
	Number	Percent 1	Number	Percent 1	Number	Percent 1	Number	Percent 1	Number	Percent 1				
2002	9,224	34.7	3,272	31.0	567	10.2	5	4.5	13,068	30.5				
2001	8,992	34.8	3,278	31.4	594	10.4	0	0.0	12,864	30.5				
2000	9,073	35.5	3,396	31.8	579	10.3	2	2.3	13,050	31.1				
1999	8,796	34.8	3,150	29.9	596	10.2	5	5.2	12,547	30.1				
1998	8,688	35.1	3,300	31.3	672	11.0	3	2.8	12,663	30.5				
1997	8,813	35.7	3,388	31.0	661	10.5	8	7.0	12,870	30.6				
1996	9,193	37.6	3,647	33.1	713	11.3	4	3.8	13,557	32.4				
1995	9,607	39.4	3,515	32.6	759	11.6	0	0.0	13,881	33.2				
1994	9,428	39.8	3,514	33.4	751	11.7	0	0.0	13,693	33.6				
1993	9,695	41.9	3,717	35.9	813	12.4	0	0.0	14,225	35.5				
1992	9,986	44.2	3,901	38.2	796	12.5	1	1.2	14,684	37.4				
1991	11,024	46.1	4,283	40.1	922	13.6	2	1.6	16,231	39.1				
1990	12,425	48.3	4,775	42.3	1,076	14.4	3	2.8	18,279	41.0				
1989	12,662	48.0	4,668	40.2	1,043	13.9	8	10.7	18,381	40.3				
1988	13,156	48.3	5,041	42.7	1,096	14.0	10	5.3	19,303	41.0				
1987	13,447	50.1	5,257	45.2	1,209	15.4	5	8.9	19,918	42.9				
1986	13,501	50.7	5,294	46.1	1,237	15.8	6	5.6	20,038	43.5				
1985	12,208	48.2	4,655	43.8	1,177	15.1	0	0.0	18,040	41.2				
1984	12,484	48.8	4,780	45.2	1,252	15.7	7	6.4	18,523	41.9				
1983	11,776	48.8	4,784	45.2	1,285	16.6	2	1.8	17,847	41.9				
1982	12,143	49.3	5,023	46.5	1,450	17.7	6	6.7	18,622	42.6				
1981	13,723	48.7	5,455	45.3	1,477	16.6	7	4.1	20,662	41.9				
1980	13,851	48.1	5,746	44.3	1,509	16.5	8	5.8	21,114	41.3				
1979	13,098	45.4	5,695	43.9	1,450	15.8	2	2.0	20,245	39.6				
1978	11,773	41.6	5,273	40.2	1,316	15.0	0	0.0	18,362	36.5				
1977	11,064	42.4	5,076	39.6	1,271	14.6	3	2.8	17,414	36.5				

¹ Indicates the percentage of alcohol involvement among all decedents in the role category.

 Table 6. Drivers involved in fatal traffic crashes, according to sex and alcohol involvement, United States, 1977–2002.

	Sex											
Year		Male			Female			Unknown			Both sexes	
1001	All	Alcohol-i	involved	All	Alcohol-i	nvolved	All	Alcohol-ir	nvolved	All	Alcohol-i	nvolved
	All	Number	Percent	All	Number	Percent		Number	Percent	All	Number	Percent
2002	42,134	10,256	24.3	14,911	1,730	11.6	758	6	0.8	57,803	11,992	20.7
2001	41,711	9,919	23.8	14,867	1,817	12.2	902	6	0.7	57,480	11,742	20.4
2000	41,795	10,027	24.0	14,790	1,845	12.5	695	8	1.2	57,280	11,880	20.7
1999	41,012	9,656	23.5	14,835	1,720	11.6	654	5	8.0	56,501	11,381	20.1
1998	40,816	9,724	23.8	15,089	1,781	11.8	699	4	0.6	56,604	11,509	20.3
1997	40,954	9,807	24.0	14,954	1,824	12.2	780	8	1.0	56,688	11,639	20.5
1996	41,223	10,377	25.2	14,798	1,942	13.1	772	7	0.9	56,793	12,326	21.7
1995	41,235	10,708	26.0	14,184	1,885	13.3	745	8	1.1	56,164	12,601	22.4
1994	40,233	10,695	26.6	13,567	1,822	13.4	749	3	0.4	54,549	12,520	23.0
1993	39,514	11,098	28.1	13,064	1,927	14.8	765	6	8.0	53,343	13,031	24.4
1992	38,598	11,533	29.9	12,596	1,982	15.7	707	12	1.7	51,901	13,527	26.1
1991	40,680	12,845	31.6	12,806	2,077	16.2	837	9	1.1	54,323	14,931	27.5
1990	44,281	14,618	33.0	13,726	2,309	16.8	886	9	1.0	58,893	16,939	28.8
1989	45,420	14,555	32.1	14,044	2,401	17.1	925	9	1.0	60,398	16,965	28.1
1988	47,402	15,529	32.8	13,951	2,384	17.1	900	7	0.8	62,253	17,920	28.8
1987	46,882	15,926	34.0	13,604	2,590	19.0	940	8	0.8	61,434	18,524	30.2
1986	46,648	16,193	34.7	12,744	2,315	18.2	939	9	1.0	60,331	18,517	30.7
1985	44,846	14,496	32.3	12,142	2,223	18.3	895	6	0.7	57,883	16,725	28.9
1984	44,704	14,946	33.4	11,901	2,273	19.1	893	6	0.7	57,498	17,225	30.0
1983	42,807	14,440	33.8	10,957	2,040	18.6	885	3	0.0	54,649	16,483	30.2
1982	44,165	15,090	34.2	10,628	2,042	19.2	976	5	0.5	55,769	17,137	30.7
1981	50,272	16,947	33.7	11,488	2,297	20.0	360	2	0.6	62,120	19,246	31.0
1980	51,451	17,141	33.3	11,460	2,236	19.5	28	3	10.7	62,939	19,380	30.8
1979	52,780	16,540	31.3	11,407	1,908	16.7	39	2	5.1	64,226	18,450	28.7
1978	52,235	15,019	28.8	11,337	1,694	14.9	26	1	3.9	63,598	16,714	26.3
1977	48,951	14,199	29.0	10,858	1,628	15.0	23	0	0.0	59,832	15,827	26.5

Table 7. Drivers involved in fatal traffic crashes and given BAC ¹ tests, according to injury severity, United States, 1977–2002.

			Drivers give	en BAC tests		
Year	De	ead	Al	ive	,	All
	Number	Percent ²	Number	Percent ²	Number	Percent ²
2002	19,277	72.6	9,466	30.3	28,743	49.7
2001	18,732	72.5	9,465	29.9	28,197	49.1
2000	18,958	74.2	9,930	31.3	28,888	50.4
1999	18,681	74.0	9,458	30.3	28,139	49.8
1998	18,192	73.5	9,455	29.7	27,647	48.8
1997	18,111	73.4	9,533	29.8	27,644	48.8
1996	17,885	73.1	9,310	28.8	27,195	47.9
1995	18,635	76.4	9,255	29.1	27,890	49.7
1994	17,964	75.8	8,612	27.9	26,576	48.7
1993	17,696	76.5	8,476	28.0	26,172	49.0
1992	17,660	78.2	8,191	27.9	25,851	49.8
1991	18,769	78.4	8,515	28.0	27,284	50.2
1990	20,322	78.9	9,489	28.6	29,811	50.6
1989	20,972	79.5	9,116	26.9	30,138	49.9
1988	21,347	78.3	8,942	25.6	30,289	48.7
1987	20,873	77.8	8,902	25.7	29,775	48.5
1986	20,575	77.3	8,746	26.0	29,321	48.6
1985	19,324	76.3	8,362	25.7	27,686	47.8
1984	18,451	72.1	7,308	22.9	25,759	44.8
1983	16,257	67.4	6,766	22.2	23,023	42.1
1982	16,050	65.0	6,787	21.7	22,837	40.8
1981	16,756	59.4	6,486	19.1	23,242	37.4
1980	16,591	57.6	6,544	19.2	23,135	36.8
1979	16,584	57.5	6,239	17.6	22,823	35.5
1978	15,501	54.8	5,693	16.1	21,194	33.3
1977	14,316	54.7	5,290	15.6	19,606	32.7

Blood alcohol concentration.
 Drivers given tests as percentage of total drivers.

Table 8. Drivers involved in fatal traffic crashes and given BAC ¹ tests, according to State and injury severity, United States, 2000 and 2002.

						Drivers give	n BAC tests					
State			20	00					20	02		
State	De	ad	Ali	ive	А	II	De	ad	Ali	ive	A	All
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	18,958	74.2	9,930	31.3	28,888	50.4	19,277	72.6	9,466	30.3	28,743	49.7
Alabama	490	70.3	245	36.8	735	53.9	256	36.8	173	26.5	429	31.8
Alaska	44	64.7	32	56.1	76	60.8	18	34.0	27	46.6	45	40.5
Arizona ² Arkansas ²	399	77.9	108	12.9	507	37.6	407	71.9	80	9.2	487	33.9
Arkansas ²	318	72.4	222	53.8	540	63.4	313	72.6	193	50.7	506	62.3
California ²	1,795	91.6	786	25.2	2,581	50.8	1,939	88.1	830	25.1	2,769	50.3
Colorado 2	355	86.4	156	29.9	511	54.8	380	80.5	126	25.3	506	52.1
Connecticut 2	190	85.2	72	29.6	262	56.2	168	87.5	63	28.8	231	56.2
Delaware	55	84.6	65	57.0	120	67.0	62	86.1	58	57.4	120	69.4
District of Columbia	6	27.3	17	42.5	23	37.1	1	3.6	8	18.2	9	12.5
Florida	1,136	65.9	572	22.5	1,708	40.0	1,197	66.8	661	25.2	1,858	42.1
Georgia	852	87.6	965	82.1	1,817	84.6	794	83.1	961	78.8	1,755	80.7
Hawaii	58	79.5	29	26.9	87	48.1	36	66.7	53	46.5	89	53.0
Idaho ²	130	73.9	77	47.5	207	61.2	131	76.2	73	41.0	204	58.3
Illinois ²	743	87.4	216	19.2	959	48.6	776	90.1	236	22.3	1,012	52.7
Idaho ² Illinois ² Indiana ²	388	66.6	406	57.8	794	61.7	384	70.3	421	69.6	805	69.9
lowa	177	59.2	144	43.1	321	50.7	141	49.8	110	35.1	251	42.1
Kansas ²	214	65.4	162	52.3	376	59.0	57	16.1	38	11.8	95	14.1
Kentucky Louisiana ²	325	59.4	215	40.2	540	49.9	367	58.3	223	37.6	590	48.2
Louisiana ²	483	81.6	457	71.7	940	76.5	447	82.2	452	72.3	899	76.9
Maine	96	91.4	114	91.9	210	91.7	134	91.8	112	89.6	246	90.8
Maryland	338	94.4	57	11.1	395	45.3	339	83.3	69	12.5	408	42.6
Massachusetts ²	196	76.6	28	8.0	224	37.0	169	57.7	12	3.6	181	29.0
Michigan ²	655	78.6	490	41.7	1,145	57.0	600	75.4	416	39.5	1,016	54.9
Minnesota ²	379	93.6	321	67.2	700	79.3	372	86.5	286	62.3	658	74.0
Minnesota ² Mississippi ²	449	72.9	398	64.2	847	68.5	401	68.0	262	50.8	663	59.9
Missouri ²	548	75.8	98	11.5	646	41.0	620	78.4	99	11.7	719	43.8
Montana	45	30.4	36	26.5	81	28.5	164	90.6	88	71.5	252	82.9
Nebraska ²	142	80.2	134	69.8	276	74.8	182	85.0	164	83.2	346	84.2
Nevada ²	152	89.4	76	33.2	228	57.1	169	82.4	113	36.7	282	55.0
New Hampshire ²	77	84.6	41	53.2	118	70.2	90	90.0	64	76.2	154	83.7
New Hampsille		04.0		JJ.Z	110	10.2	90	90.0	04	10.2	104	03.1

Table 8. Drivers involved in fatal traffic crashes and given BAC ¹ tests, according to State and injury severity, United States, 2000 and 2002. (Continued)

	Drivers given BAC tests																
State			20	00					20	01		Percent 36.2 43.1 19.2 50.0 50.4 59.6 41.3 62.9 55.0 51.7 44.5					
State	Dead		Ali	ive	Д	All	De	ad	Alive			All					
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent					
New Jersey ² New Mexico ²	341	81.4	223	35.7	564	54.0	237	56.6	133	22.1	370	36.2					
New Mexico ²	214	87.3	62	19.8	276	49.5	205	83.0	41	12.7	246	43.1					
New York ²	493	63.9	32	2.6	525	26.2	344	42.6	49	3.9	393						
North Carolina	456	47.2	48	4.0	504	23.3	973	95.7	95	8.5	1,068						
North Dakota ²	40	75.5	18	34.0	58	54.7	55	80.9	8	14.0	63	50.4					
Ohio ²	695	73.9	287	29.0	982	50.9	804	82.0	382	37.8	1,186	59.6					
Oklahoma	332	78.5	11	2.4	343	38.6	362	76.5	40	8.0	402	41.3					
Oregon ²	263	92.0	139	40.2	402	63.6	229	87.1	121	41.3	350	62.9					
Pennsylvania ²	878	88.4	238	21.3	1,116	52.9	937	86.9	268	24.1	1,205	55.0					
Rhode Island	49	98.0	4	8.7	53	55.2	51	86.4	10	16.9	61	51.7					
South Carolina ²	220	32.2	67	9.2	287	20.3	517	74.4	94	13.9	611	44.5					
South Dakota ²	79	81.4	73	60.8	152	70.0	102	85.7	70	73.7	172	80.4					
Tennessee ²	658	75.7	439	50.3	1,097	63.0	575	72.5	409	53.8	984	63.4					
Texas	1,259	56.5	952	33.6	2,211	43.7	1,181	51.9	730	26.6	1,911	38.1					
Utah ²	118	58.4	137	51.7	255	54.6	102	56.4	95	44.6	197	50.0					
Vermont	47	88.7	22	57.9	69	75.8	51	98.1	14	25.0	65	60.2					
Virginia	439	73.8	16	2.3	455	35.4	245	42.6	5	0.8	250	20.6					
Washington ² West Virginia ² Wisconsin ²	341	90.5	119	24.4	460	53.2	380	90.7	88	19.8	468	54.2					
West Virginia ²	264	96.7	72	28.8	336	64.2	271	90.3	91	33.0	362	62.8					
Wisconsin 2	471	87.5	192	33.7	663	59.8	455	81.5	221	38.4	676	59.6					
Wyoming	66	78.6	40	44.0	106	60.6	87	76.3	31	35.6	118	58.7					

¹ Blood alcohol concentration. ² As of January 1, 2002, the State had enacted laws requiring BAC tests on drivers killed in traffic accidents (National Highway Traffic Safety Administration 2002).

Table 9. Drivers involved in fatal traffic crashes and given BAC ¹ tests, according to sex, age, and injury severity, United States, 2000 and 2002.

	Drivers given BAC tests												
Sex and age			20	00					20	02			
Sex and age	De	ad	Ali	ive	Д	JI	De	ad	Al	ive	P	All	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Both sexes		•		•						•		•	
16–19	2,033	75.1	1,363	38.1	3,396	54.0	2,136	73.5	1,175	34.3	3,311	52.3	
20–24	2,737	79.3	1,656	39.1	4,393	57.1	2,890	77.0	1,694	39.5	4,584	57.0	
25–34	3,779	79.1	2,304	33.1	6,083	51.8	3,630	76.2	2,189	32.9	5,819	51.0	
35–44	3,637	78.1	2,062	31.8	5,699	51.2	3,614	77.0	1,865	30.1	5,479	50.3	
45+	6,670	68.2	2,480	26.1	9,150	47.5	6,861	67.3	2,478	25.7	9,339	47.1	
Total ²	18,856	74.3	9,865	32.1	28,721	51.2	19,131	72.7	9,401	31.1	28,532	50.5	
Male ³													
16–19	1,467	76.1	1,020	41.3	2,487	56.6	1,525	74.9	866	37.0	2,391	54.6	
20–24	2,167	79.8	1,344	42.2	3,511	59.5	2,308	77.5	1,373	43.0	3,681	59.7	
25–34	2,966	79.8	1,818	35.4	4,784	54.0	2,926	77.2	1,744	35.5	4,670	53.7	
35–44	2,765	79.0	1,626	34.0	4,391	53.0	2,721	77.8	1,451	31.6	4,172	51.6	
45+	4,814	69.3	1,987	28.1	6,801	48.6	5,001	68.4	1,997	28.1	6,998	48.6	
Total	14,179	75.4	7,795	34.4	21,974	53.0	14,481	73.9	7,431	33.6	21,912	52.5	
Female ³													
16–19	566	72.6	343	31.0	909	48.1	611	70.2	309	28.7	920	47.2	
20–24	570	77.3	312	29.6	882	49.2	582	75.0	321	29.4	903	48.4	
25–34	813	76.6	486	26.7	1,299	45.1	704	72.0	445	25.6	1,149	42.3	
35–44	872	75.4	436	25.8	1,308	45.9	893	74.8	414	25.6	1,307	46.5	
45+	1,856	65.4	493	20.3	2,349	44.5	1,860	64.3	481	18.9	2,341	43.0	
Total	4,677	71.1	2,070	25.5	6,747	46.0	4,650	69.3	1,970	24.4	6,620	44.8	

Blood alcohol concentration.
 The totals may not equal the totals in tables 7 and 8 because drivers under age 16 or having missing data on age are excluded from this table.
 Because of missing data on sex, the sum of the male and female drivers may not always equal the number for both sexes in a corresponding category.

Table 10. Percentage ¹ distributions of BAC ² among alcohol-involved drivers, according to sex and age, United States, 2000 and 2002.

Sex, year, and age	BAC level								
	0.0104	0.05–.07	0.0809	0.1014	0.15–.19	0.2024	0.2529	0.30+	
Both Sexes									
2002									
16–19	15.3	11.0	8.4	25.6	21.7	11.5	5.2	1.2	
20–24	9.0	8.0	6.6	22.1	26.2	18.4	7.2	2.8	
25–34	7.2	6.6	6.4	19.6	23.9	21.1	10.2	5.0	
35–44	7.6	4.7	5.7	17.5	23.5	21.1	12.7	7.1	
45+ Total	11.6 9.3	6.7 6.9	4.4 6.1	17.1 19.7	21.7 23.6	19.4 19.3	12.4 10.1	6.7 5.0	
	9.3	0.9	0.1	19.7	23.0	19.3	10.1	5.0	
2000 16–19	14.2	11.0	11.8	25.3	21.6	11.3	3.0	1.9	
20–24	10.1	7.4	7.4	21.7	26.2	17.3	7.3	2.7	
25–34	7.9	5.5	5.9	19.5	25.9	20.7	10.5	4.0	
35–44	7.6	6.2	4.9	17.8	22.2	20.8	12.8	7.7	
45+	12.7	6.7	4.4	17.1	20.4	19.7	12.6	6.5	
Total	9.8	6.8	6.2	19.6	23.5	19.0	10.1	4.9	
Male									
2002									
16–19	14.8	10.6	8.2	25.7	22.0	12.1	5.3	1.3	
20–24	8.4	7.9	6.5	21.9	26.4	18.7	7.4	2.7	
25–34	6.7	6.7	6.3	19.6	24.4	21.1	10.3	5.0	
35–44	7.8	4.4	6.0	17.4	23.5	21.5	12.8	6.6	
45+ Total	11.3 9.0	6.6 6.8	4.4 6.0	16.5 19.5	21.5 23.8	19.3 19.5	13.4 10.4	7.1 5.0	
2000	0.0	0.0	0.0	10.0	20.0	10.0	10.4	0.0	
16–19	13.0	10.4	12.2	25.4	22.3	11.6	3.2	2.0	
20–24	10.1	7.6	7.3	21.5	26.3	16.9	7.4	2.9	
25–34	7.8	5.7	6.3	20.0	25.6	20.4	10.6	3.7	
35–44	7.5	6.2	5.1	17.5	23.0	21.1	12.3	7.3	
45+	12.2	6.6	4.4	16.5	19.9	20.6	13.1	6.7	
Total	9.6	6.8	6.4	19.5	23.7	19.1	10.2	4.8	
Female									
2002									
16–19	18.3	13.5	9.5	25.4	19.8	7.9	4.8	0.8	
20–24	12.7	8.2	7.0	23.8	24.2	15.6	5.3	3.3	
25–34	10.7	6.1	7.1	19.7	20.7	21.3	9.0	5.5	
35–44 45+	6.9 14.0	5.9 7.0	4.6 4.8	17.9 21.0	23.7 22.8	19.4 19.9	12.2 6.3	9.4 4.4	
Total	11.3	7.0	4.0 6.1	20.7	22.5	18.2	8.3	5.6	
2000			V . 1			10.2	0.0	0.0	
16–19	20.0	13.6	10.3	25.2	18.1	9.7	1.9	1.3	
20–24	9.6	5.8	8.1	23.1	25.0	20.4	6.9	1.2	
25–34	8.6	4.2	3.9	17.1	28.1	22.3	10.4	5.5	
35–44	8.2	6.4	4.0	19.3	18.0	19.8	14.8	9.6	
45+	15.9	7.4	4.4	20.7	23.3	14.0	9.2	5.2	
Total	11.2	6.6	5.4	20.3	22.8	18.4	9.9	5.4	

 $^{^{\}rm 1}\,$ Percentage is computed only for those drivers having known age and positive BAC scores. Blood alcohol concentration (in grams per deciliter).

Table 11. Alcohol-related traffic crash fatalities associated with young drivers ages 16 to 24, according to decedent's role, United States, 1977–2002.

	Decedent's role in crash								
Year	Driver		Passenger		Nonoccupant		All ¹		
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
2002	2,623	61.1	1,532	35.7	132	3.1	4,290	100.0	
2001	2,497	60.2	1,501	36.2	147	3.5	4,145	100.0	
2000	2,500	60.6	1,476	35.8	149	3.6	4,125	100.0	
1999	2,403	61.1	1,397	35.5	133	3.4	3,934	100.0	
1998	2,353	59.8	1,444	36.7	139	3.5	3,936	100.0	
1997	2,305	58.4	1,493	37.8	148	3.7	3,947	100.0	
1996	2,479	58.6	1,587	37.5	164	3.9	4,231	100.0	
1995	2,609	60.8	1,521	35.5	160	3.7	4,290	100.0	
1994	2,726	61.4	1,540	34.7	172	3.9	4,438	100.0	
1993	2,836	60.4	1,675	35.6	188	4.0	4,699	100.0	
1992	2,942	60.4	1,722	35.3	209	4.3	4,873	100.0	
1991	3,557	61.5	2,010	34.7	219	3.8	5,788	100.0	
1990	3,934	61.1	2,220	34.5	285	4.4	6,441	100.0	
1989	4,183	62.2	2,232	33.2	311	4.6	6,726	100.0	
1988	4,759	62.4	2,556	33.5	314	4.1	7,629	100.0	
1987	4,832	61.7	2,600	33.2	392	5.0	7,827	100.0	
1986	5,273	62.2	2,802	33.0	403	4.7	8,483	100.0	
1985	4,706	63.1	2,360	31.6	396	5.3	7,462	100.0	
1984	5,075	62.4	2,636	32.4	418	5.1	8,132	100.0	
1983	4,724	60.7	2,608	33.5	452	5.8	7,784	100.0	
1982	5,088	60.5	2,787	33.1	531	6.3	8,409	100.0	
1981	5,652	61.1	3,046	32.9	545	5.9	9,246	100.0	
1980	6,047	61.0	3,319	33.5	545	5.5	9,918	100.0	
1979	5,741	59.3	3,373	34.8	563	5.8	9,683	100.0	
1978	5,156	59.2	3,058	35.1	490	5.7	8,704	100.0	
1977	4,911	58.4	3,041	36.2	449	5.3	8,403	100.0	

 $^{^{1}}$ The total number of decedents in the "All" column includes fatalities for which the decedent's role was unknown. There were 2, 6, 7, 3, 3, 5, 3, 2, 2, 2, 1, 1, 1, and 3 cases of unknown decedent's role for the years 1977, 1979, 1980, 1981, 1982, 1984, 1986, 1987, 1989, 1990, 1991, 1996, 1997, 1999, and 2002 respectively. No cases were unknown for 1978, 1983, 1985, 1988, 1992–95, 1998, 2000, and 2001.

Table 12. Traffic crash fatalities among young drivers and young drinking drivers ages 16 to 24, United States, 1977–2002.

	Fatalities							
Year		All drivers 1		Drinking drivers ¹				
	Nu	mber		Nu				
	All ages	Young (ages 16–24)	Percent who are young	All ages	Young (ages 16–24)	Percent who are young		
2002	26,321	6,661	25.3	8,274	2,301	27.8		
2001	25,637	6,265	24.4	8,069	2,169	26.9		
2000	25,380	6,160	24.3	8,147	2,195	26.9		
1999	25,091	6,029	24.0	7,901	2,136	27.0		
1998	24,544	5,786	23.6	7,771	2,062	26.5		
1997	24,470	5,731	23.4	7,847	2,003	25.5		
1996	24,227	5,876	24.3	8,238	2,164	26.3		
1995	24,167	6,023	24.9	8,603	2,249	26.1		
1994	23,450	6,125	26.1	8,423	2,373	28.2		
1993	22,941	5,998	26.2	8,728	2,479	28.4		
1992	22,402	5,862	26.2	8,904	2,531	28.4		
1991	23,744	6,606	27.8	9,973	3,128	31.4		
1990	25,532	7,220	28.3	11,153	3,402	30.5		
1989	26,137	7,566	29.0	11,316	3,593	31.8		
1988	27,003	8,410	31.1	11,834	4,128	34.9		
1987	26,535	8,363	31.5	11,981	4,140	34.6		
1986	26,332	8,712	33.1	11,975	4,536	37.9		
1985	25,013	8,321	33.3	10,855	4,072	37.5		
1984	25,273	8,632	34.2	11,103	4,359	39.3		
1983	23,868	8,017	33.6	10,359	3,998	38.6		
1982	24,410	8,535	35.0	10,689	4,280	40.0		
1981	27,755	9,778	35.2	12,065	4,729	39.2		
1980	28,456	10,571	37.2	12,109	5,051	41.7		
1979	28,482	10,864	38.1	11,467	4,845	42.3		
1978	27,896	10,820	38.8	10,188	4,269	41.9		
1977	25,782	10,091	39.1	9,662	4,191	43.4		

¹ Ages under 16 and unknown are excluded.

Table 13. Driver's alcohol involvement in fatal traffic crashes, according to sex and age, United States, 2000 and 2002.

	Drivers							
Sex and age		2000		2002				
	Nui	mber	Percent alcohol- involved	Nur	nber	Percent alcohol-		
	Total	Alcohol- involved		Total	Alcohol- involved	involved		
Both sexes								
16–24	13,974	3,568	25.5	14,367	3,711	25.8		
16–20	8,024	1,654	20.6	8,082	1,630	20.2		
21–24	5.950	1,914	32.2	6,285	2,081	33.1		
25–29	,	1,743	28.8	5,810	1,726	29.7		
30–34	,	1,429	25.2	5,606	1,416	25.3		
35–39	5.802	1,511	26.0	5,455	1,360	24.9		
40–44	,	1,254	23.5	5,441	1,273	23.4		
45–49	,	854	18.8	4,714	934	19.8		
50–54	,	555	15.1	3,803	610	16.0		
55–59	,	366	13.6	2,925	374	12.8		
60–64	,	196	9.4	2,138	210	9.8		
65–69	,	129	8.3	1,582	120	7.6		
70–74	,	118	7.4	1,494	86	5.8		
75–79		69	4.9	1,424	78	5.5		
80+		46	2.7	1,771	41	2.3		
Total ¹	56,126	11,838	21.1	56,530	11,939	21.1		
Male ²								
16–24	10.294	3,059	29.7	10,551	3,222	30.5		
16–20	,	1,398	24.4	5,696	1,393	24.5		
21–24	,	1,661	36.4	4,855	1,829	37.7		
25–29	,	1,485	32.4	4,505	1,526	33.9		
30–34	,	1,187	27.8	4,193	1,214	29.0		
35–39	,	1,207	28.4	4,081	1,117	27.4		
40–44	,	1,063	26.4	4,005	1,021	25.5		
45–49	,	712	21.0	3,498	795	22.7		
50–54	- ,	488	17.6	2,811	532	18.9		
55–59	1.988	313	15.7	2,235	325	14.5		
60–64	,	171	10.9	1,558	185	11.9		
65–69	1.086	113	10.4	1,144	107	9.4		
70–74		101	9.4	1,032	71	6.9		
75–79	963	59	6.1	951	70	7.4		
80+	1,148	40	3.5	1,176	35	3.0		
Total	41,443	9,998	24.1	41,740	10,220	24.5		
Female ²								
16–24	3,680	509	13.8	3,816	489	12.8		
16–20		256	11.2	2,386	237	9.9		
21–24	1,389	253	18.2	1,430	252	17.6		
25–29	1,479	258	17.4	1,305	200	15.3		
30–34	1,403	242	17.3	1,413	202	14.3		
35–39	1,550	304	19.6	1,374	243	17.7		
40–44	1,297	191	14.7	1,435	252	17.6		
45–49	1,153	142	12.3	1,216	139	11.4		
50-54	909	67	7.4	992	78	7.9		
55–59	694	53	7.6	690	49	7.1		
60–64	508	25	4.9	580	25	4.3		
65–69	462	16	3.5	438	13	3.0		
70–74	511	17	3.3	462	15	3.2		
75–79	459	10	2.2	473	8	1.7		
80+	577	6	1.0	594	6	1.0		
Total	14,682	1,840	12.5	14,788	1,719	11.6		
- I Ulai	14,002	1,040	12.0	14,700	1,718	11.0		

¹ The totals may not equal the totals in table 6 because drivers under age 16 or having missing data on age are excluded from this

table.

The sum of the male and female drivers may not always equal the number for both sexes in a corresponding category because drivers with missing data on sex are excluded from the male and female subcategories.

 Table 14.
 Alcohol involvement among young drivers ages 16–20 in fatal traffic crashes, United States, 1977–2002.

Year	Drivers ¹							
		Ages 16-20		Ages 21 and older				
	Nur	mber	Percent alcohol- involved	Nur	Percent alcohol-			
	Total	Alcohol- involved		Total	Alcohol- involved	involved		
2002	8,082	1,630	20.2	48,448	10,309	21.3		
2001	7,963	1,608	20.2	48,177	10,096	21.0		
2000	8,024	1,654	20.6	48,102	10,184	21.2		
1999	7,985	1,554	19.5	47,374	9,787	20.7		
1998	7,767	1,569	20.2	47,637	9,891	20.8		
1997	7,719	1,555	20.2	47,693	10,052	21.1		
1996	7,804	1,581	20.3	47,617	10,690	22.4		
1995	7,725	1,504	19.5	47,122	11,037	23.4		
1994	7,723	1,652	21.4	45,515	10,810	23.8		
1993	7,256	1,728	23.8	44,824	11,337	25.3		
1992	7,192	1,856	25.8	43,490	11,609	26.7		
1991	8,002	2,274	28.4	45,005	12,687	28.2		
1990	8,821	2,672	30.3	48,572	14,191	29.2		
1989	9,442	2,694	28.5	49,428	14,202	28.7		
1988	10,171	3,100	30.5	50,487	14,746	29.2		
1987	9,910	3,130	31.6	49,919	15,335	30.7		
1986	10,163	3,488	34.3	48,525	14,933	30.8		
1985	9,386	2,910	31.0	46,936	13,723	29.2		
1984	9,804	3,365	34.3	46,218	13,833	29.9		
1983	9,334	3,283	35.2	43,850	13,164	30.0		
1982	9,858	3,603	36.5	44,604	13,571	30.4		
1981	11,635	4,074	35.0	49,603	15,145	30.5		
1980	12,766	4,464	35.0	49,511	14,861	30.0		
1979	13,501	4,510	33.4	50,017	13,982	28.0		
1978	13,761	4,048	29.4	49,126	12,603	25.7		
1977	13,142	3,912	29.8	46,182	11,989	26.0		

¹ Ages under 16 and unknown are excluded.